# 6.0 PROJECT ALTERNATIVES

CEQA requires the consideration of alternative development scenarios and an analysis of the impacts associated with the alternatives. Through comparison of these alternatives to the proposed project, the advantages of each can be weighed and analyzed. Section 15126.6(a) of the CEQA Guidelines requires that an EIR, "describe a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project, but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives." (Section 15126.6).

Additionally, Sections 15126.6 (e)(f) of the CEQA Guidelines state:

- The specific alternative of "no project" shall also be evaluated along with its impact. If the environmentally superior alternative is the "no project" alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives.
- The range of alternatives required in an EIR is governed by a "rule of reason" that requires the EIR to set forth only those alternatives necessary to permit a reasoned choice. The alternatives shall be limited to ones that would avoid or substantially lessen any of the significant effects of the project. Of those alternatives, the EIR need examine in detail only the ones that the lead agency determines could feasibly attain most of the basic objectives of the project. The range of feasible alternatives shall be selected and discussed in a manner to foster meaningful public participation and informed decision-making.

Pursuant to the CEQA Guidelines stated above, a range of alternatives to the proposed project is considered and evaluated in this EIR. The discussion in the section provides:

1. A description of alternatives considered;
2. An analysis of whether the alternatives meet most of the objectives of the project (described in Chapter 3.0 of this EIR); and
3. A comparative analysis of the alternatives under consideration and the proposed project. The focus of this analysis is to determine if alternatives are capable of eliminating or reducing the significant environmental effects of the project to a less than significant level. Table 6-1 provides a summary of this analysis. The alternatives considered in the EIR include: 1) No Project/No Development; 2) Existing General Plan; and, 3) No Affordable Site Housing.

# TABLE 6-1
# Comparison of Project Alternatives Impacts To Proposed Project Impacts

| Impact Category | 6.2 No Project/No Development Alternative | 6.3 Existing General Plan Alternative | 6.4 No Affordable Housing Site Alternative |
|---|---|---|---|
| **Land Use** | NA | NA | NA |
| **Traffic/Circulation** | NA | NA | NA |
| **Air Quality** | Avoid | Greater | Reduced |
| **Greenhouse Gas Emissions** | Avoid | Greater | Reduced |
| **Noise** | Avoid | Similar | Reduced |
| **Biological Resources** | Avoid | Similar | Reduced |
| **Cultural Resources** | Avoid | Similar | Similar |
| **Geology/Soils** | Avoid | Similar | Similar |
| **Paleontological Resources** | Avoid | Similar | Similar |
| **Hazardous Materials and Hazards** | Avoid | Similar | Similar |
| **Grading and Aesthetics** | NA | NA | NA |
| **Hydrology/Water Quality** | Avoid | Reduced | Reduced |
| **Population/Housing** | NA | NA | NA |
| **Public Services and Utilities** | Avoid | Reduced | Reduced |
| **Environmentally Superior?** | **Yes** | **No** | **Yes** |
| **Meets Project Objectives?** | **No** | **Some** | **Most** |
| **Complies with HMP?** | **Yes** | **Yes** | **Yes** |

Notes: NA = No significant impact identified associated the proposed project.
Avoid = Impacts under this alternative avoided as compared to impacts for the proposed project.
Greater = Impacts under this alternative greater as compared to impacts for the proposed project.
Reduced = Impacts under this alternative reduced as compared to impacts for the proposed project.
Similar = Impacts under this alternative similar to impacts for the proposed project.

Source: BRG Consulting, 2010.

# 6.1 Objectives for the Project

The following statements represent objectives of the project. These objectives also provide a basis for identification of alternatives evaluated in the EIR.

- Construct and operate a community that will be licensed by the California State Department of Social Services as a Continuing Care Retirement Community (CCRC) which meets all applicable state and local licensing requirements and complies with all applicable regulations;
- Operate the facility in compliance with the Fair Housing Act definition of "housing for older persons" in that at least one person who is 55 or older will occupy at least 80 percent of the occupied units;
- Construct and operate a multi-unit professional care facility/senior community catering to older adults desiring access to various on-site services;
- Construct and operate a facility that provides a "supportive living" approach to provide services in a home environment, blending in the latest knowledge and expertise from the various long-term and personal care disciplines;
- Provide residents with an environment that allows them as much independence as possible, yet is safe, resulting in maximizing their quality of life and dignity;
- Construct and operate a project that provides a residential setting that provides and coordinates housing, basic and personal care services, 24-hour supervision and assistance (scheduled and unscheduled), activities, and health-related services;
- Provide the highest quality service-enhanced community for seniors in the market;
- Design a senior community which encourages social interaction by providing a variety of common indoor and outdoor recreation areas/activities.
- Provide a facility that allows for protective oversight of residents including monitoring of the general condition and whereabouts of a resident with regular visits by personal aides, regular health check ups and a 24-hour emergency call system;
- Provide for compatible and complimentary adjacent land uses and facilities;
- Implement a project that is sensitive to the environment and aesthetically pleasing;
- Strengthen the City's tax base and economic viability through property taxes;
- Provide increased employment opportunities for local residents;
- Construct a multi-family affordable housing development to comply with the City's Affordable housing requirements;
- Provide dwelling units that will add to the diversity of housing opportunities within the City;
- Construct College Boulevard Reach "A" to complete this General Plan Circulation Element Roadway;

- Provide a topographically level area which is conducive for senior citizens;
- Locate a senior community in an area which is within a reasonable walking distance of a bus or transit stop;
- Relocate the existing Rancho Carlsbad Estates RV storage and garden areas in order to satisfy the mitigation measure requirement for the previously certified College Boulevard Reach "A" EIR (EIR 98-02, SCH No. 99111082);
- Provide additional emergency access to and from Rancho Carlsbad Estates through the proposed project site; and
- Development and retention of open space and wildlife habitat through the preservation and enhancement of sensitive flora and fauna.

The following alternatives are under consideration:

1. No Project/No Development Alternative
2. Existing General Plan Alternative
3. No Affordable Housing Site Alternative

**Alternatives Considered but Rejected**

***Alternative Location***

In certain cases, an evaluation of an alternative location in an EIR is necessary. Section 15126(f)(A) of the CEQA Guidelines states, "Key question. The key question and first step in analysis is whether any of the significant effects of the project would be avoided or substantially lessened by putting the project in another location. Only locations that would avoid or substantially lessen any of the significant effects of the project need be considered for inclusion in the EIR."

With respect to the proposed Dos Colinas project, no significant, unmitigable impacts have been identified. With implementation of proposed mitigation, all significant environmental impacts will be mitigated to a level less than significant. Additionally, the proposed project would be consistent with applicable plans, such as the City's General Plan and the Habitat Management Plan.

Constructing the proposed project at an alternative location could avoid some of the significant, environmental impacts associated with the proposed project; however, it is likely that development of the project at an alternative location would, in turn, result in additional environmental impacts. Furthermore, development of the proposed project at an alternative location would require a minimum of 55 acres of vacant land with available supporting infrastructure.

With the exception of the West Village of Robertson Ranch, there is no vacant parcel of land in the northeast quadrant of the City suitable in size, and that is not environmentally constrained or with appropriate access to accommodate the proposed project. The Robertson Ranch Master Plan was

adopted by the City in 2006. The proposed Robertson Ranch Master Plan is envisioned as a balanced master planned community which integrates residential, commercial, educational, recreational and open space land uses. The land use plan is intended to provide residents with the opportunity to live, shop and enjoy open space and active recreational facilities within their own community. The Master Plan defines two distinct villages – the East Village and the West Village, which will be defined by a distinct set of land uses and linked by a pedestrian circulation system as well as thematically linked through the implementation of landscape design and related architecture.

The West Village comprises 219.4 acres of land, of which 145.5 acres are included in the proposed development areas. Within the West Village, the proposed Dos Colinas project could be accommodated within Planning Areas (PA) 3, 7, 8, and 11, which comprise a total of 59.4 acres.

CEQA Guidelines Section 15126(f)(1) states, in part, "Among the factors that may be taken into account when addressing the feasibility of alternatives are site suitability, economic viability, availability of infrastructure, general plan consistency, other plans or regulatory limitations, jurisdictional boundaries ... and whether the proponent can reasonably acquire, control or otherwise have access to the alternative site ..."

The City considers an alternative location infeasible and rejects further analysis of this alternative due to the following factors:

1. No significant, unmitigated impacts have been identified for the proposed project. Construction and operation of the proposed project at an alternative location would likely result in similar, impacts associated with the proposed project, or additional impacts that are currently not identified for the project at its currently proposed location.

2. The proposed project is consistent with the overall goals and objectives of the City's General Plan and the Habitat Management Plan.

3. With the exception of the West Village of Robertson Ranch, there is no area of vacant land large enough that is not environmentally constrained, and has the appropriate access to accommodate the proposed project with supporting infrastructure.

4. The West Village of Robertson Ranch is subject to the Robertson Ranch Master Plan and associated General Plan land uses and zoning regulations. In order to accommodate the proposed project, Robertson Ranch Master Plan Planning Areas (PA) 3, 7, 8, and 11 would need to be removed from the Master Plan land use configuration as currently adopted. PA's 3, 7, 8, and 11 of the West Village are currently contemplated for a mixture of residential uses and non-residential (i.e., commercial, village center) uses. Development of the proposed project at this location would eliminate the ability to develop these uses, which have been contemplated as part of the overall Master Plan concept. The Master Plan land use configuration has incorporated the requirements of the City's Architectural Design Guidelines for the Development of Livable Neighborhoods (Policy 44), and Principles for the Development for Livable Neighborhoods (Policy 66) and reflects smart

growth elements, as exemplified by the Ahwahnee Principles. Elimination of these PA's from the Master Plan as currently adopted would not be in concert with these principles.

5. The project proponent does not own any portion of the West Village and it is not currently available for purchase.

***Floodplain Modification Avoidance Alternative***

Portions of the project site are located within the 100-year floodplain associated with Agua Hedionda Creek. The existing 100-year floodplain extends into a majority of the proposed RV storage/garden parcel, the southern portion of the CCRC site (where the detention basins are proposed and in the proposed open space parcel), and a majority of the affordable housing site. Figure 5.12-9 in Section 5.12 Hydrology/Water Quality depicts the existing 100-year floodplain of Agua Hedionda Creek in relation to the project site. The City's Habitat Management Plan LFMP Zone 15 standards include, "Conserve all riparian habitat onsite, and prohibit fill or development within the existing flood plain except where required for Circulation Element roads, Drainage Master Plan facilities, or other essential infrastructure" (HMP, page D-79).

The City considers an alternative that avoids modification to the floodplain infeasible and rejects further analysis of this alternative due to the following factors:

1. The RV storage/garden parcel will require fills in the 100-year floodplain; however, this fill is required in order to relocate the existing RV storage/garden area currently located off-site on parcel APN#16805036 to the project site, which in turn would allow the construction of detention Basin "BJ" a Drainage Master Plan facility;
2. In order to construct the proposed access road from Rancho Carlsbad Estates through the CCRC site, fill on portions of the CCRC site would be required. This access road is required as a condition of approval for RMHP 96-01(D), which requires a secondary access to College Boulevard.
3. The entire affordable housing site (developed portion) would be raised out of the floodplain. The provision of affordable housing is a requirement of the City's inclusionary housing ordinance and the deletion of this component of the project would not meet the project objectives to provide affordable housing. (Please refer to the No Affordable Housing site alternative discussion in the following text).
4. With the cumulative fill and soil removal within the CCRC site and the affordable housing site, there would be a net gain of approximately 5.7 acre-feet of storage volume within the floodplain at the CCRC site, and a net gain of 1-acre foot at the affordable housing site. In addition, the creation of detention Basin "BJ" represents an approximate net gain of 20-acre feet of storage volume.
5. The amount of floodplain acreage lost due to impacts within the proposed project are entirely offset by the provision of onsite and offsite creation of floodplain, resulting in no net loss of floodplain.
6. Compensation for the loss of habitat is included in the proposed biological mitigation provided in Section 5.6 Biological Resources of this EIR. Habitat types impacted within the floodplain are extensive agriculture, disturbed habitat, and urban/developed lands.

# 6.2 No Project/No Development Alternative

The State CEQA Guidelines require analysis of the No Project Alternative (Public Resources Code Section 15126). According to Section 15126.6(e), "the specific alternative of 'no project' shall also be evaluated along with its impacts. The 'no project' analysis shall discuss the existing conditions at the time the notice of preparation is published, at the time environmental analysis is commenced, as well as what would be reasonably expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services."

## 6.2.1 Description of Alternative

The No Project/No Development Alternative assumes that the Dos Colinas project, as proposed, would not be implemented and the project site would not be developed. The No Project/No Development Alternative would not provide new assisted living units and affordable housing to meet the needs of the City of Carlsbad's anticipated population growth. Overall, the No Project/No Development Alternative would not meet any of the project objectives.

### *6.2.1.1 Land Use*

Under this alternative no new development would occur on the proposed site and the site would remain vacant. Implementation of this alternative would not avoid or reduce a significant impact to land use as no significant impact associated with the proposed project has been identified.

### *6.2.1.2 Traffic/Circulation*

Under the No Project/No Development Alternative, the project-related increase in vehicle trips generated by the proposed project would not occur. However, no significant traffic operational impact associated with the project has been identified; therefore, implementation of this alternative would not avoid or reduce a significant impact associated with traffic/circulation. Without the implementation of the proposed project, College Boulevard Reach "A" may not be constructed; which could ultimately result in greater circulation impacts in the future due to a shift in traffic patterns that would otherwise utilize this roadway as a direct connection to El Camino Real.

### *6.2.1.3 Air Quality*

No new short-term (construction) or long-term (operational) air pollutant emissions would occur as a result of the No Project/No Development Alternative. Implementation of the No Project/No Development Alternative would avoid the short-term construction impacts associated with the proposed project. However, implementation of this alternative would not avoid or reduce a significant air quality impact related to long-term (operational) effects as no significant impact of the operation of the proposed project has been identified.

### *6.2.1.4 Greenhouse Gas Emissions*

Implementation of this alternative would avoid the potential impact to greenhouse gas emissions associated with the proposed project. Because no development would occur under this alternative no greenhouse gas emissions would be generated.

### 6.2.1.5 Noise

Implementation of this alternative would avoid the noise impacts associated with the proposed project, as no new development would occur on the site requiring the need to construct sound barriers adjacent to College Boulevard Reach "A."

### 6.2.1.6 Biological Resources

Implementation of this alternative would avoid impacts to biological resources associated with the proposed project, as the project site would remain in its existing condition.

### 6.2.1.7 Cultural Resources

*Implementation of this alternative would avoid the potential impact to cultural resources associated with the proposed project. Because no land disturbance would occur under this alternative, there would not be a potential to disturb previously undiscovered cultural resources.*

### 6.2.1.8 Geology/Soils

The geological formation, seismic, and soils conditions under the No Project/No Development Alternative would remain the same as current conditions. Implementation of this alternative would avoid the geology/soils impacts associated with the proposed project.

### 6.2.1.9 Paleontological Resources

Implementation of this alternative would avoid the potential impact to paleontological resources associated with the proposed project. Because no grading would occur, there would be no disturbance to geologic formations potentially containing paleontological resources.

### 6.2.1.10 Hazardous Materials and Hazards

The No Project/No Development Alternative would avoid the impact associated with potential hazardous materials and hazards, as the existing structures located on the lower parcel of the CCRC site would not be demolished.

### 6.2.1.11 Grading and Aesthetics

Under this alternative no new development would occur on the proposed site and the site would remain vacant. However, implementation of this alternative would not avoid or reduce a significant impact associated with grading and aesthetics as no significant impact associated with the proposed project has been identified.

### 6.2.1.12 Hydrology/Water Quality

The No Project/No Development Alternative would not change the existing hydrologic conditions or potentially contribute pollutants to Agua Hedionda Creek, affecting water quality. Under this alternative, there would be no increased impacts or changes to the existing drainage patterns or volume of storm water runoff compared to the proposed project. Therefore, implementation of this alternative would avoid or reduce the significant impacts to hydrology and water quality impacts associated with the proposed project.

#### 6.2.1.13 *Population/Housing*

This alternative would not avoid or reduce the impact to population/housing as no significant impact to population/housing has been identified for the proposed project. However, this alternative would not provide additional housing, including the provision of affordable housing opportunities in the City.

#### 6.2.1.14 *Public Services and Utilities*

This alternative would not result in a demand for public services and utilities as compared to the proposed project because no development would occur to require a need for such services. Therefore, the impacts to public services and utilities associated with the implementation of the proposed project would be avoided with this alternative.

### 6.2.2 Conclusion – No Project/No Development Alternative

This alternative is environmentally superior to the proposed project. Implementation of this alternative would avoid impacts related to land use, traffic/circulation, air quality, greenhouse gas emissions, noise, biological resources, cultural resources, geology/soils, paleontological resources, hazardous materials and hazards, grading /aesthetics, hydrology/water quality, population/housing, and public services/utilities. However, none of the basic objectives of the project would be met with this alternative. The No Project/No Development Alternative would not provide a multi-unit professional care facility/senior community catering to older adults desiring access to various on-site services and would not provide dwelling units that will add to the diversity of housing opportunities within the City. This alternative would not provide increased employment opportunities for local residents.

## 6.3 Existing General Plan Alternative

### 6.3.1 *Description of Alternative*

The Existing General Plan Alternative assumes that the project site would be developed pursuant to the specifics of the existing General Plan land use designations.

Under this scenario, development of the project site would be primarily either one large subdivision or a series of single-family residential subdivisions (residential low-medium density). The residential low-medium density (RLM) General Plan designation allows 0-4 dwelling units per acre. Open space areas, similar to the existing open space areas that surround the site, will be maintained. Grading is assumed to be similar in area and quantity as the proposed project. Additional emergency access to and from Rancho Carlsbad Estates would be provided through the proposed project site. This alternative would comply with the City's Inclusionary Housing Ordinance by developing 15% of the total units, equaling to 29 units, as affordable to low income households. Thus, the project would result in the provision of moderate-priced housing pursuant to the Regional Housing needs.

The CCRC site would be developed with residential units, open space, and an RV storage/garden area. The Existing General Plan alternative would not include the development of a continuing care retirement community. However, it is assumed that the RV storage/garden area would be included as it is a

requirement from a mitigation measure for the future extension of College Boulevard Reach "A" (EIR No. 98-02, SCH No. 99111082) and Zone the 15 Local Facilities Management Plan. The CCRC site contains 52.5 gross acres. If the acreage for land with existing slopes greater than 25%, land with sensitive biological habitat (including riparian and wetlands), and existing floodway areas are removed from development under this alternative, the result would be 48.43 net acres. Assuming a maximum of 4 dwelling units per acre, this alternative would result in a total of 194 residential units.

The affordable housing site would consist of both open space and residential uses and contains 3.2 gross acres. If the acreage for existing floodway areas is removed from development under this alternative, the result would be 1.88 net acres. Assuming a maximum of 4 dwelling units per acre, this alternative would result in a total of 7 residential units.

As compared to the proposed project, the Existing General Plan Alternative would provide 137 fewer residential units, assuming that the CCRC site is considered a residential use (the CCRC facility is considered a commercial use under the proposed project due to the specific type of operation proposed).

#### 6.3.1.1 *Land Use*

Implementation of this alternative would not reduce, or avoid, any significant land use impact associated with the proposed project as no significant land use impact has been identified.

#### 6.3.1.2 *Traffic/Circulation*

This alternative would result in the generation of more vehicular trips than the proposed project. Although the Existing General Plan Alternative would provide a lower density residential development on the project site, the trip generation associated single-family housing is higher than the type of facility that would operate under the project. The increase in traffic would be greater than the project, although the net increase is not likely to trigger an operational impact to study area roadway segments and/or intersections as land use assumptions have been made and vehicular trip generation estimated based on Zone 15 LFMP land uses. Nonetheless, implementation of this alternative would not reduce, or avoid, any significant land use impact associated with the proposed project as no significant traffic/circulation impact has been identified.

#### 6.3.1.3 *Air Quality*

This alternative would result in a similar short-term (construction) air quality impact as the proposed project. However, because this alternative would result in an increase number of vehicle trips as compared to the proposed project, this alternative would result in greater long-term (operational) air emissions which would exceed significance threshold levels, and mitigation would be required.

#### 6.3.1.4 *Greenhouse Gas Emissions*

The Existing General Plan Alternative would result in combined annual greenhouse gas (GHG) emission of 2,949 metric tons per year. This total represents roughly 0.00059% of California's total 2004 emissions of 492 million metric tons. The majority of this alternative's GHG emissions are associated with operations including energy use (53%). Whereas the proposed project would result in a total of approximately 1,551 metric tons

per year and the majority of GHG emissions is associated with mobile sources (88%). In comparison, the proposed project would result in fewer GHG emissions than the Existing General Plan Alternative because the proposed project will provide senior housing which generally yields less average daily trips than single-family housing. As such, implementation of this alternative would result in greater GHG emission impacts as compared to the proposed project and would require the implementation of the mitigation identified in Section 5.4 of this EIR.

#### 6.3.1.5 Noise

This alternative would result in a similar noise impacts as the proposed project. Because residential uses would be located adjacent to College Boulevard, mitigation in the form of sound barriers fronting College Boulevard would be required. This alternative would eliminate the potential noise impacts associated with on-site operations, such as the amphitheater, HVAC units, and the delivery/loading areas. As with the proposed project, this alternative would not generate a substantial amount of traffic generated noise potentially impacted off-site uses. Implementation of mitigation similar to that as identified in Section 5.5 of this EIR would be required.

#### 6.3.1.6 Biological Resources

This alternative would result in a similar impact to biological resources as the development footprint/limits of grading would be similar to the proposed project. In addition, it is assumed that open space features would be similar to the project in order to meet HMP provisions regarding the Proposed Standards Area and development in the floodplain, as well as in order to obtain City approval of a Special Use Permit for development in the floodplain. Therefore, implementation of mitigation similar to the measures identified in Section 5.6 of this EIR would be required for this alternative.

#### 6.3.1.7 Cultural Resources

This alternative would result in a similar impact to cultural resources as the proposed project. The development footprint and limits of grading would be the same as the proposed project; therefore, there would be a similar potential to impact currently undiscovered cultural resources. Implementation of mitigation as identified in Section 5.7 of this EIR would also be required for this alternative.

#### 6.3.1.8 Geology/Soils

This alternative would result in a similar geology/soils impact as the proposed project. The overall development footprint would be similar to the proposed project. Implementation of mitigation as identified in Section 5.8 of this EIR would be required for this alternative.

#### 6.3.1.9 Paleontological Resources

This alternative would result in a similar potential to impact paleontological resources as the proposed project. The development footprint and limits of grading would be similar to the proposed project; and the same geologic formation potentially containing paleontological resources would be disturbed by grading activity. Implementation of mitigation as defined in Section 5.9 of this EIR would be required for this alternative.

#### 6.3.1.10 *Hazardous Materials and Hazards*

Implementation of this alternative would result in a similar hazards/hazardous materials impact as the proposed project. As with the proposed project, existing and potentially present hazardous materials would need to be properly disposed of and remediated (if necessary) prior to development of the project site under the alternative plan. Residential uses under this alternative would be compatible with the McClellan-Palomar Airport Land Use Compatibility Plan. As with the project, implementation of mitigation identified in Section 5.10 of this EIR would be required.

#### 6.3.1.11 *Grading and Aesthetics*

Implementation of this alternative would not reduce, or avoid, any significant grading and aesthetics impact associated with the proposed project as no significant impact has been identified.

#### 6.3.1.12 *Hydrology/Water Quality*

Similar to the proposed project, this alternative would result in significant topographical changes and an increase in impervious surfaces over the existing conditions for the project site. However, this alternative would result in a slight decrease in impervious acreages as compared to the proposed project because the residential units would contain front yard and backyard landscaping. Additionally, the paved areas associated with commercial development such as parking lots, walkways, and courtyards, would not be constructed. Therefore, implementation of this alternative would result in a reduced hydrology and water quality impact as the proposed project. Nonetheless, grading and construction activity, as well as operational (long-term) activities would potentially contribute pollutants to Agua Hedionda Creek, affecting water quality. As with the project, implementation of mitigation identified in Section 5.12 of this EIR would be required.

#### 6.3.1.13 *Population/Housing*

This alternative would not avoid or reduce the impact to population/housing as no significant impact to population/housing has been identified.

#### 6.3.1.14 *Public Services and Utilities*

Under this alternative, impacts to public services and utilities would be less than under the proposed project, because this alternative would result in the construction of fewer residential units. Nonetheless, implementation of mitigation as identified in Section 5.14 of this EIR would also be required for this alternative.

### 6.3.2 Conclusion – Existing General Plan Alternative

This alternative is consistent with the existing RLM General Plan Land Use designation and would not require a General Plan Amendment. The current zoning for the project site is Limited Control (L-C) and the project site would need to be re-zoned to Residential (R-1). Impacts to hydrology/water quality, public services, and utilities would be reduced under this alternative. Implementation of this alternative would result in greater impacts to air quality and greenhouse gas emissions. In addition, this alternative would not meet the following objectives of the project:

- Construct and operate a community that will be licensed by the California State Department of Social Services as a Continuing Care Retirement Community (CCRC) which meets all applicable state and local licensing requirements and complies with all applicable regulations;
- Operate the facility in compliance with the Fair Housing Act definition of "housing for older persons" in that at least one person who is 55 or older will occupy at least 80 percent of the occupied units;
- Construct and operate a multi-unit professional care facility/ senior community catering to older adults desiring access to various on-site services;
- Construct and operate a facility that provides "supportive living" approach to provide services in a home environment, blending in the latest knowledge and expertise from the various long-term and personal care disciplines;
- Construct and operate a project that provides a residential setting and coordinates housing, basic and personal care services, 24-hour supervision and assistance (scheduled and unscheduled), activities, and health-related services;
- Provide the highest quality service enhanced community for seniors in the market; and
- Provide a facility that allows for protective oversight of residents including monitoring of the general condition and whereabouts of a resident with regular visits by personal aides, regular health check-ups and a 24-hour emergency call system.

# 6.4 No Affordable Housing Site Alternative

## 6.4.1 Description of Alternative

Under this alternative, the affordable housing site (APN 209-060-68) would not be developed with 29 affordable housing units as a component of the proposed project and the site would remain in its existing condition as primarily vacant land. Because the City's Inclusionary Housing Ordinance requires that if more than seven affordable units are required, payment of an in-lieu fee is not available as an option, and the units must be constructed at the CCRC site, or at another off-site location. The proposed development on the CCRC site under the No Affordable Site Housing Alternative would be the same as the proposed project (309 units). The RV storage/Garden area would be included as it is a requirement from a mitigation measure for the future extension of College Boulevard Reach "A" (EIR No. 98-02, SCH No. 99111082) and Zone the 15 Local Facilities Management Plan. Additional emergency access to and from Rancho Carlsbad Estates would be provided through the proposed project site.

### *6.4.1.1 Land Use*

Implementation of this alternative would not reduce, or avoid, any significant land use impact associated with the proposed project as no significant impact has been identified.

### *6.4.1.2 Traffic/Circulation*

This alternative would reduce the project traffic generation from 1,400 average daily trips (ADT) to 1,120 ADT, if the affordable housing units where constructed at an off-site location. However, implementation of

this alternative would not avoid or reduce a significant impact to traffic/circulation as no significant impact associated with the proposed project has been identified. As with the proposed project, the design recommendations provided in Section 5.2 of this EIR would also be required to be implemented with this alternative.

#### 6.4.1.3 *Air Quality*

Because the affordable housing units would not be constructed at the project site, this alternative would reduce the construction and mobile-source emissions impact associated with the proposed project as a result of decreased development and traffic volumes; however, implementation of this alternative will result in a similar impact related to air quality, as with the proposed project implementation of the mitigation measures provided in Section 5.3 of this EIR would be required to reduce short-term (construction) related air quality impacts.

#### 6.4.1.4 *Greenhouse Gas Emissions*

Under this alternative GHG emissions will be reduced because proposed development and vehicle trips will be reduced as compared to the proposed project. However, implementation of this alternative would not avoid or reduce a significant impact to greenhouse gas emissions as no significant impact associated with the proposed project is identified.

#### 6.4.1.5 *Noise*

Implementation of this alternative would result in similar but reduced impacts to noise, because no noise wall barriers would be required for the affordable housing site. Additionally, there would not be any short-term construction-related noise impacts to adjacent land uses at the affordable housing site. However, the noise impacts at the CCRC site would remain the same as the proposed project, requiring implementation of mitigation as identified in Section 5.5 of this EIR.

#### 6.4.1.6 *Biological Resources*

This alternative would result in a reduced impact to biological resources as compared to the proposed project because the affordable housing units would not be constructed at the currently proposed affordable site. Filling in the floodplain at APN 209-060-68 would not be required and short- and long-term impacts to sensitive habitats and species within Agua Hedionda Creek, including Southern sycamore-alder riparian woodland and least Bell's vireo, would be reduced under this alternative. However, this alternative would not preserve and manage the area within and adjacent to Agua Hedionda Creek as open space that would have been enhanced to provide additional wetland habitat that could be used by least Bell's vireo. Nonetheless, impacts at the affordable housing site would be reduced under this alternative. The development footprint/limits of grading for the CCRC site under this alternative would be similar to the proposed project. As depicted on Figure 5.6-1 of this EIR, the majority of the sensitive biological resources are related to the CCRC site. As such, this alternative would require the implementation of the mitigation measures identified in Section 5.6 of this EIR.

### 6.4.1.7 Cultural Resources

This alternative would result in a similar impact to cultural resources as the proposed project, requiring implementation of mitigation as identified in Section 5.7 of this EIR.

### 6.4.1.8 Geology/Soils

This alternative would result in a similar geology/soils impact as the proposed project. While the development footprint would be reduced, implementation of mitigation as identified in Section 5.8 of this EIR would be required.

### 6.4.1.9 Paleontological Resources

This alternative would result in a similar potential to impact paleontological resources as the proposed project. The development footprint and limits of grading would be slightly reduced as compared to the proposed project; however, the same geologic formation potentially containing paleontological resources would be disturbed by grading activity. Implementation of mitigation as defined in Section 5.9 of this EIR would be required.

### 6.4.1.10 Hazardous Materials and Hazards

Implementation of this alternative would result in a similar hazards/hazardous materials impact as the proposed project. As with the proposed project, existing and potentially present hazardous materials would need to be properly disposed of and remediated (if necessary) prior to development of the project site under the alternative plan. As with the proposed project, implementation of mitigation identified in Section 5.10 of this EIR would be required.

### 6.4.1.11 Grading and Aesthetics

Implementation of this alternative would not reduce, or avoid, any significant grading and aesthetics impact associated with the proposed project as no significant impact has been identified. However, because no construction would occur at the affordable housing site, short-term construction-related impacts and long-term impacts, including visual impacts of the sound walls, would not occur.

### 6.4.1.12 Hydrology and Water Quality

Similar to the proposed project, this alternative would result in significant topographical changes and an increase in impervious surfaces over the existing conditions for the project site. However, this alternative would result in slight decrease in impervious acreages as compared to the proposed project because no development would occur on the affordable housing site, which is located within the floodplain. Additionally, there would be no filling within the floodplain at the affordable housing site. Therefore, implementation of this alternative would result in reduced hydrology and water quality impacts as compared to the proposed project. Nonetheless, construction activities would occur that have a potential impact water quality and the existing 100-year floodplain would be modified in order to accommodate proposed development at the CCRC site. As with the project, implementation of mitigation identified in Section 5.12 of this EIR would be required.

#### 6.4.1.13 *Population/Housing*

This alternative would not avoid or reduce the impact to population/housing as no significant impact to population/housing has been identified.

#### 6.4.1.14 *Public Services and Utilities*

Under this alternative, impacts to public services and utilities would be less than under the proposed project, because this alternative would result in the construction of fewer residential units. Nonetheless, implementation of mitigation as identified in Section 5.14 of this EIR would also be required for this alternative.

### 6.4.2 Conclusion – No Affordable Housing Alternative

This alternative is environmentally superior to the proposed project. Implementation of this alternative would reduce the project's impact to biological resources, air quality, greenhouse gas emissions, hydrology/water quality, public services, utilities, and noise. This alternative would also meet most of the project objectives with the exception of the two following objectives:

- Construct a multi-family affordable housing development to comply with the City's Affordable Housing requirements; and,
- Provide dwelling units that will add to the diversity of housing opportunities within the City.

# 7.0 ANALYSIS OF LONG-TERM EFFECTS

## 7.1 Cumulative Impacts

CEQA Guidelines Section 15355 define cumulative effects as "two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts." The CEQA Guidelines further state that the individual effects may be changes resulting from a single project or a number of separate projects; or the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects. Section 15130 of the CEQA Guidelines allows for the use of two alternative methods to determine the scope of projects for the cumulative impact analysis:

> ***List Method –*** A list of past, present, and probable future projects producing related or cumulative impacts, including, if necessary, those projects outside the control of the agency.
>
> ***General Plan Projection Method*** – A summary of projections contained in an adopted general plan or related planning document, or in a prior environmental document which has been adopted or certified, which described or evaluated regional or area-wide conditions contributing to the cumulative impact.

This cumulative impact analysis utilizes the regional growth projections method, which assumes build-out of both local and regional general plans as well as population forecasts for the County and region as a whole. In addition, the City of Carlsbad has provided a list of specific cumulative projects to be included in this analysis, which are described below.

### 7.1.1 SANDAG Regional Growth Forecasts and Cumulative Projects

SANDAG estimates regional growth for the San Diego County area for the purposes of planning and public policy development. The most recent growth projections available at the time of the Notice of Preparation (NOP, November, 2009) was published for the EIR is the Year 2020 and Year 2030 Forecasts, demographic conditions. Cumulative conditions were evaluated using the *North County SANDAG Series 11 Model (Year 2020 and Year 2030)*. The forecast model contains planned and existing developments land use information throughout the San Diego County. In particular, the following cumulative projects were included in the cumulative analysis:

1. Cantarini Ranch
2. Carlsbad Oaks North
3. Emerald Pointe Estates
4. Alga Norte Community Park
5. Mammoth Professional Office Building
9. First Responders Training Center
10. Carlsbad High School Project
11. Legoland Hotel
12. Poinsettia Place
13. Carlsbad Medical Center

6. Robertson Ranch Master Plan
7. Holly Springs
8. Bressi Ranch Master Planned Community
14. Westfield Mall Expansion
15. PonteBello-aka Bridges at Aviara (Application withdrawn)
16. Palomar Commons (Lowe's Center)

## 7.1.2 Geographic Scope for Cumulative Impact Analysis

The geographic scope of the cumulative impact analysis varies depending upon the environmental issue being analyzed. For the purposes of this EIR, the city limits of Carlsbad define the geographic scope for the analysis of cumulative land use and planning, public services and utilities, and visual aesthetic grading. The City's General Plan, the Growth Management Plan, and development policies address land use, public services and utilities, and aesthetic and grading issues. The City limits also define geographic scope for cultural resources and hazardous materials and hazards since the proposed project does not require any grading or development that would contribute to cumulative cultural resources or hazardous materials and hazards impacts outside of the City limits.

The City limits also define the geographic scope for biological resources as the City's HMP provides guidelines for the regulation and management of biological resources within the City limits of Carlsbad.

The North County sub-regional area is used as the geographic scope for the analysis of geology/soils due to the location of existing faults in the region.

The San Diego Air Basin is used as the geographic scope for the analysis of cumulative air quality impacts due to the existence of Regional Air Quality Strategy Plans and requirements set forth by the San Diego Air Pollution Control District, which apply to all cumulative projects within the San Diego Air Basin.

The Earth's atmosphere is used as the geographic scope for analysis of greenhouse gas emissions impacts.

The Agua Hedionda Creek watershed defines the geographic scope related to hydrology and water quality as cumulative development in these watersheds could impact the drainage and water quality of the watershed and downstream water bodies.

Figure 5.2-1 in Section 5.2 - Traffic/Circulation of this EIR identifies the roadways that were analyzed in the Traffic Impact Analysis (Appendix B of this EIR).

The geographic scope for the analysis of cumulative noise impacts is also defined by the traffic study area as shown on Figure 5.2-1.

## 7.1.3 Land Use

The project consists of the development and operation of RV storage and garden areas for Rancho Carlsbad Estates, a 309-unit continuing care retirement community, and a 29-unit multi-family development. The project site is surrounded by a range of existing land uses (i.e., Rancho Carlsbad Estates,

Rancho Carlsbad golf course, equestrian uses, Terraces at Sunny Creek single-family and multi-family developments) as well as planned urban uses (i.e. Cantarini Ranch, Holly Springs, Carlsbad High School located at the northeast corner of College Boulevard and Cannon Road, the extension of College Boulevard Reach "A," and a vacant commercial parcel at the northeast corner of El Camino Real and College Boulevard.) Land uses in the City will significantly change during buildout of the area. Achievement of orderly growth will be dependent upon development in the future occurring in a manner consistent with the City's General Plan, Growth Management Plan, and development regulations. Because the City has adopted these plans, and will continue to implement these plans, which will, in turn, avoid significant land use impacts, no cumulative impact will occur. The proposed development has been determined to be compatible with the existing surrounding land uses as well as approved and anticipated land uses. In addition, the analysis in Section 5.1 – Land Use of this EIR has determined that no significant project impact would occur to existing land use plans and policies, including the Carlsbad General Plan, Carlsbad Habitat Management Plan, and specific regulatory and environmental documents adopted by the City. The project-level land use impact is considered less than significant. Therefore, the project will not contribute to a significant cumulative impact to land use. No significant cumulative impact to land use will occur.

## 7.1.4 Traffic/Circulation

The proposed project traffic impacts and cumulative traffic impacts are evaluated in Section 5.2 Traffic/Circulation of this EIR. As discussed, the North County SANDAG Series 11 Model for Years 2020 and 2030. These traffic models contain planned and existing developments land use information throughout San Diego County. In particular, the City of the Carlsbad requested that the cumulative projects listed above be included in the model runs. The following is a brief description of each cumulative project included in the model runs.

1. **Cantarini Ranch** is a residential development consisting of 105 single-family homes and 80 multi-family homes on 156.72 acres. The site is located east of El Camino Real, just south of the Holly Springs property.

2. **Carlsbad Oaks North** is a 219.5-acre industrial park designed to include 23 industrial use lots and the 3 open space lots. The project is located north of Palomar Airport Road, bordered by the City of Vista on the north and east.

3. **Emerald Pointe Estates** proposes to develop 14 single-family homes on 18 acres located on the north side of Cobblestone Road, between Sapphire Drive and Aviara Parkway.

4. **Alga Norte Community Park** is a community park spanning 33 acres and located northwest of the intersection of the future alignment of Poinsettia Lane and Alicante Road, and east of El Camino Real.

5. **Mammoth Professional Office Building** proposes to construct a multiple tenant three-story 67,958 square foot office building in conjunction with a two-story parking structure. The building will be situated north of Palomar Airport Road and east of Loker Avenue East within the City of Carlsbad.

6. **Robertson Ranch Master Plan** proposes approximately 398 acres, consisting of a mixture of residential, commercial, educational, recreational, and open space land uses.

7. **Holly Springs** proposes to construct 43 single-family homes on approximately 119 acres. Approximately 59 acres will be open space with an additional 20-acre open space remainder parcel.

8. **Bressi Ranch Master Planned Community** includes development of 125 acres of industrial uses, 523 detached dwelling units, 100 attached dwelling units, 100 assisted living units, 10 acres of community commercial uses and 10 acres of community facilities. The project is located on the southeast corner of San Marcos Boulevard and El Camino Real intersection.

9. **First Responders Training Center** is currently under construction and includes four new buildings which include a shooting range, classroom facility, fire administration, and burn props. The project is located on the east side of Orion Street near Orion Way.

10. **Carlsbad High School Project** proposes to construct a 2,400 student high school in two phases. The project is located on the northeast corner of Cannon Road and College Boulevard.

11. **Legoland Hotel** California proposes to construct a 250-room resort hotel. The project is located on the north side of Palomar Airport Road between Legoland Drive and the Hidden Valley Drive.

12. **Poinsettia Place** is a residential development consisting of 90 condominiums on 20.4 acres located on the south side of Cassia Road and Poinsettia Lane, approximately one-half mile west of El Camino Real.

13. **Carlsbad Medical Center** is on Lot 4, GPA 07-04.

14. **Westfield Mall Expansion** is an existing Super Regional Shopping Center. It is located in the northwest portion of the City of Carlsbad on approximately 97 acres at the City's northern entrance along El Camino Real, and currently has 1,151,092 square feet (sf) of gross leasable area (GLA). The Project involves the demolition, reconfiguration, and/or reconstruction of approximately 179,631 GLA sf of existing square footage, and the development of up to approximately net 35,417 GLA sf, for a total of approximately 1,186,509 GLA sf.

15. **PonteBello- aka Bridges at Aviara** (Application withdrawn).

16. **Palomar Commons (Lowe's Center)** proposes a building area of 185,244 square feet. A Lowe's home improvement store will account for 153,974 square feet, while the remaining area is proposed as retail stores and restaurants. The project is located on the intersection of El Camino Real and Palomar Airport Road.

### *7.1.4.1 Year 2020*

#### A. Intersections

All intersections will operate at a LOS D or better, with the exception of seven intersections, which will operate at LOS E or F without the project in Year 2020 and would continue to operate at the same LOS with

the addition of project traffic. Based on the established significance criteria, the seven intersections would not exceed thresholds; therefore, no significant traffic impact is identified in Year 2020 at these intersections.

**B, Street Segments**

Under the Year 2020 without project conditions, all street segments are expected to operate at LOS A, with the exception of southbound College Boulevard to Faraday Avenue during the AM peak hour, which is expected to operate at LOS B. With the addition of the project traffic, all street segments would continue to operate at a LOS B or better and no significant traffic impact is identified in Year 2020 at these street segments.

### *7.1.4.2 Year 2030*

**A. Intersections**

All intersections included in the traffic study area are calculated to operate at LOS D or better, except for seven intersections calculated to operate at LOS E or F without the project in Year 2030. These seven intersections would continue to operate at LOS E or F with the addition of the project traffic. Based on the established significance criteria, the seven intersections would not exceed thresholds; therefore, no significant project related impacts would occur.

**B. Street Segments**

Under Year 2030 without project conditions, all of the study area street segments are expected to operate at LOS C or better. These street segments would continue to operate at LOS C or better under the Year 2030 with project conditions; therefore, no significant impacts would occur.

In conclusion, the proposed project will not contribute to a significant cumulative impact to traffic/circulation.

## 7.1.5 Air Quality

The San Diego Air Basin is in transitional-attainment status of federal standards for $O_3$. The Basin is either in attainment or unclassified for federal standards of CO, $SO_2$, $NO_2$, $PM_{10}$, and lead. The SDAB is also in attainment of state air quality standards for all pollutants with the exception of $O_3$ and $PM_{10}$. Development forecasted for the region will generate increased emission levels from transportation and stationary sources. Potential cumulative air quality impacts will be partially reduced through implementation and achievement of emission levels identified in the Regional Air Quality Strategies (RAQS) and General Plan air quality elements of local jurisdictions. Based on the expected reductions in emissions due to implementation of these plans, vehicle emissions are anticipated to gradually decrease dependent on the type of pollutant. However, combined emissions from the project site and other developed areas in the Basin are expected to continue to generate emissions associated with these developments, which have the potential to exceed threshold levels. However, as with the proposed project, each of the cumulative projects would be required to mitigate impacts. As such, with the implementation of Mitigation Measures

as described in Section 5.3 of this EIR, the proposed project will not result in a significant contribution to a cumulative air quality impact.

## 7.1.6 Greenhouse Gas Emissions

One of the basic purposes of CEQA is to, "inform governmental decision makers and the public about the potential, significant environmental effects of proposed activities" (CEQA Guidelines Section 15002(a)(1)). Furthermore, the CEQA Statutes "require a finding that a project may have a 'significant effect on the environment' if one or more of the following conditions exists:"

(1) A proposed project has the potential to degrade the quality of the environment, curtail the range of the environment, or to achieve short-term, to the disadvantage of long-term, environmental goals.

(2) The possible effects of a project are individually limited, but cumulatively considerable. As used in this paragraph, 'cumulatively considerable' means that the incremental effects of an individual project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.

(3) The environmental effects of a project will cause substantial adverse effects on human beings, either directly or indirectly." (Public Resources Code Section 21083 (b)).

This section includes a discussion of existing climate conditions, climate change, and GHG emissions sources in California; a summary of applicable regulations; and a description of the potential impacts of the project related to climate change.

### *7.1.6.1 Environmental Setting*

**Attributing Climate Change—Greenhouse Gases**

Global Climate Change (GCC) is a change in the average weather of the earth that is measured by temperature, wind patterns, precipitation, and storms over a long period of time. The baseline, against which these changes are measured originates in historical records identifying temperature changes that have occurred in the past, such as during previous ice ages. The global climate is continuously changing, as evidenced by repeated episodes of substantial warming and cooling documented in the geologic record. The rate of change has typically been incremental, with warming or cooling trends occurring over the course of thousands of years. The past 10,000 years have been marked by a period of incremental warming, as glaciers have steadily retreated across the globe. However, scientists have observed an unprecedented acceleration in the rate of warming during the past 150 years. GCC is a documented effect. Although the degree to which the change is caused by anthropogenic (man-made) sources is still under study, the increase in warming has coincided with the global industrial revolution, which has seen the widespread reduction of forests to accommodate urban centers, agriculture, and the use of fossil fuels – primarily the burning of coal, oil, and natural gas for energy. The majority of scientists agree that anthropogenic sources are a main, if not primary, contributor to the GCC warming.

Gases that absorb and re-emit infrared radiation in the atmosphere are called greenhouse gases (GHG), in reference to the fact that greenhouses retain heat. Common GHGs include water vapor, carbon dioxide ($CO_2$), water vapor, methane ($CH_4$), nitrous oxide ($N_2O$), fluorinated gases, and ozone ($O_3$). Of these gases, $CO_2$ and $CH_4$ are emitted in the greatest quantities from human activities. Emissions of $CO_2$ are largely by-products of fossil fuel combustion, whereas $CH_4$ results from off-gassing associates with agricultural practices and landfills. Man-made GHGs, many of which have greater heat-absorption potential than $CO_2$, include fluorinated gases such as hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride ($SF_6$).

The accumulation of GHG in the atmosphere regulates Earth's temperature. Without the natural heat trapping effect of GHG, earth's surface would be about 34° C cooler. However, it is believed that emissions from human activities, particularly the consumption of fossil fuels for electricity production and transportation, have elevated the concentration of these gases in the atmosphere beyond the level of naturally occurring concentrations.

### *7.1.6.2 Regulations*

#### A. International and Federal Regulations

To date, the United States Environmental Protection Agency (USEPA) has not regulated GHGs under the Clean Air Act; however, the U.S. Supreme Court in *Massachusetts v. EPA* (April 2, 2007) held that the USEPA can, and should, consider regulating motor-vehicle GHG emissions. On June 30, 2009, the USEPA granted California's request for a waiver to directly limit GHG tailpipe emissions for new motor vehicles beginning with the current model year. On December 7, 2009, the USEPA determined that emissions of GHGs contribute to air pollution that "endangers public health and welfare" within the meaning of the Clean Air Act. This action finalizes the USEPA's "endangerment determination" initially proposed on April 17, 2009, and now obligates the USEPA to regulate GHG emissions from new motor vehicles. This finding sets the stage for the inevitable regulation under the Clean Air Act of GHG emissions from a wide range of stationary and mobile sources unless Congress preempts such regulation by enacting climate change legislation. Although the USEPA has not yet promulgated federal regulations limiting GHG emissions, further action is pending.

#### B. California Regulations

Assembly Bill (AB) 1493, requiring the development and adoption of regulations to achieve "the maximum feasible reduction of greenhouse gases" emitted by noncommercial passenger vehicles, light duty trucks, and other vehicles used primarily for personal transportation, was signed into law in September 2002. In 2005, Executive Order S-3-05 established statewide GHG emissions reduction targets. S-3-05 provides that by 2010, emissions shall be reduced to 2000 levels; by 2020, emissions shall be reduced to 1990 levels; and, by 2050, emissions shall be reduced to 80% of 1990 levels. In response to S-3-05, CalEPA created the Climate Action Team, which in March 2006 published the Climate Action Team Report. This report identified a recommended list of strategies that the state could pursue to reduce GHG emissions.

AB 32, the "California Global Warming Act of 2006," was signed into law in the fall of 2006. AB 32 required the California Air Resources Board (CARB) to adopt regulations to require reporting and verification of statewide GHG emissions. The CARB was required to produce a plan by January 1, 2009 to indicate how emission reductions will be achieved from major GHG sources via regulations, market mechanisms, and other actions. In addition, this law requires the CARB to adopt regulations by January 1, 2010 to implement the early action GHG emission reduction measures that can be implemented before the adoption of those recommended by the 2009 plan. The bill requires achievement by 2020 of a statewide GHG emissions limit equivalent to 1990 emissions (essentially a 25% reduction below 2005 emission levels; the same requirement as under S-3-05), and the adoption of rules and regulations to achieve the maximum technologically feasible and cost-effective GHG emissions reductions.

In response to the requirements of AB 32, the CARB produced a list of 37 early actions for reducing GHG emissions in June 2007. The CARB expanded this list in October 2007 to 44 measures that have the potential to reduce GHG emissions by at least 42 million metric tons of $CO_2$ emissions by 2020, representing about 25% of the estimated reductions needed by 2020.

Senate Bill (SB) 97, signed in August 2007, acknowledges that GCC is an environmental issue that requires analysis under CEQA. In December 2009, the California Resources Agency adopted amendments to the State CEQA Guidelines for the feasible mitigation of GHG emissions or the effects of GHG emissions. The adopted guidelines give lead agencies the discretion to set quantitative or qualitative thresholds for the assessment and mitigation of GHG and GCC impacts.

**B. Local Regulations and CEQA Requirements**

Quantitative significance thresholds for GCC have not been adopted by the State of California, the City of Carlsbad or any particular air pollution control district, including the San Diego County Air Pollution Control District. Pursuant to the requirements of SB 97, the Resources Agency adopted amendments to the State Guidelines for the feasible mitigation of GHG emissions or the effects of GHG emissions. The adopted CEQA Guidelines provide regulatory guidance on the analysis and mitigation of GHG emissions in CEQA documents, while giving lead agencies the discretion to set quantitative or qualitative thresholds for the assessment and mitigation of GHG and GCC impacts. In 2009, the CEQA Guidelines were amended to include new thresholds for GHG emissions. These thresholds are provided below.

### *7.1.6.3 Impact Thresholds*

*For purposes of this EIR, a significant greenhouse gas impact would occur if implementation of the proposed project would:*

- *Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment; or,*
- *Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases.*

**The California Global Warming Solutions Act (AB 32)**

In September 2006, the California AB 32, the global warming bill, was signed into law. AB 32 directs the CARB to do the following:

1) Establish a statewide greenhouse gas emissions cap for 2020, based on 1990 emissions by January 1, 2008.

2) Adopt mandatory reporting rules for significant sources of greenhouse gases by January 1, 2009.

3) Adopt a plan by January 1, 2009 indicating how emission reductions will be achieved from significant greenhouse gas sources via regulations, market mechanisms and other actions.

4) Adopt regulations by January 1, 2011 to achieve the maximum technologically feasible and cost-effective reductions in greenhouse gas, including provisions for using both market mechanisms and alternative compliance mechanisms.

5) Convene an Environmental Justice Advisory Committee and an Economic and Technology Advancement Advisory Committee to advise CARB.

6) Ensure public notice and opportunity for comment for all CARB actions.

7) Prior to imposing any mandates or authorizing market mechanisms, CARB must evaluate several factors, including but not limited to, impacts on California's economy, the environment and public health; equity between regulated entities; electricity reliability; conformance with other environmental laws; and that the rules do not disproportionately impact low-income communities.

**The California Air Pollution Control Officers Association (CAPCOA) Recommended CO2 Screening Levels**

CAPCOA and CARB currently publish $CO_2$ screening levels for use in CEQA reporting. The screening level is set at 900 metric tons of $CO_2$ per year and is 'recommended' for all new projects within the State of California for compliance with the intent of AB 32. Operational levels due to a proposed project action above the 900 MT screening value will be subject to additional recommendations for compliance.

### *7.1.6.4 Impact Analysis*

The proposed project's contribution of about 1,551 metric tons CDE/year would exceed the 900-ton quantitative threshold suggested by CAPCOA provided in Table 6 of the Greenhouse Gas Study (Appendix C2 of this EIR), but would not exceed the other four thresholds (refer to EIR Section 5.4 Greenhouse Gas Emissions). Although emissions exceed the 900-ton quantitative threshold, the proposed project includes specific design features and measures required by Mitigation Measure GHG-1 that reduce GHG emissions by approximately 1,398 metric tons CDE/year or approximately 47% compared to the business-as-usual scenario. These measures include providing a mix of uses (residential units and approximately 180 jobs), locating housing in close proximity to existing retail, public transportation and bicycle routes, providing affordable housing units, and providing senior housing which generally yields fewer average daily trips than single-family housing. Also, the project would implement Transportation Demand Measures, building energy efficiency measures, energy efficient appliances, geothermal heat pumps, low-flow plumbing features,

drought tolerant landscaping and irrigation controls to assure water efficiency, and the installation of a Thermal Cogeneration system.

The proposed project would incrementally increase greenhouse gas emissions. However, the proposed project would minimize energy consumption, including transportation energy, water conservation and solid-waste reduction through the siting, orientation, and design of the residential units. The proposed project would increase density on the project site as compared to the business-as-usual scenario, which will help reduce the overall vehicle miles traveled. As such, the proposed project would reduce emissions by approximately 47% compared to the business-as-usual scenario. This reduction would be consistent with the goals of AB 32, which requires achievement by 2020 of a statewide GHG emissions limit equivalent to 1990 emissions. In addition, as discussed in detail in the Greenhouse Gas Study (Appendix C2 of this EIR), the proposed project would be consistent with all of the CAT strategies and the 2008 Attorney General Greenhouse Gas Reduction Measures that are applicable to the proposed project, as well as Office of Planning and Research (OPR) strategies. In addition, as with all projects in California, the proposed project would be required to be consistent with the requirements of AB 32. With the implementation of Mitigation Measures identified in Section 5.4 Greenhouse Gas Emissions of this EIR, as well as proposed project design features, the proposed project would not contribute to a significant cumulative greenhouse gas emissions impact.

### 7.1.7 Noise

Roadway noise levels will generally increase as development occurs through buildout of the SANDAG Year 2020 and 2030 Regional Growth Forecasts, including the City's projected buildout. Cumulative buildout will increase the traffic-generated noise on surrounding roadways and other types of noise typically associated with urban uses will also increase. Implementation of adopted noise regulations, such as the City's Noise Element and noise standards, will avoid a cumulative noise impact. The proposed project's contribution to a significant cumulative noise impact would not be significant, as the project-specific noise impact to off-site land uses is not significant.

### 7.1.8 Biological Resources

The increase in urbanization of currently vacant land will impact existing natural habitats and biological resources. The City's HMP anticipates future development within the City, and addresses biological impacts on a cumulative level by implementing a habitat plan that will ensure preservation of important biological resources and maintenance of habitat connectivity. The various cumulative projects include substantial open space in conformance with the City's General Plan and HMP which will ensure biological preservation within the City. Wildlife corridors will be established in accordance with HMP hardline preserve areas that will connect open space on the respective properties in order to preserve a maximum amount of confluent habitat for local biological resources. This corridor will ultimately adjoin with the large open space areas of the Carlsbad Highlands Mitigation Bank, Calavera Heights Mitigation Site, and Lake Calavera City Mitigation Bank to the north, and with the Dawson-Los Monos Reserve to the east of the project sites. The project would contribute to the long-term cumulative enhancement of the HMP through extension of Core Area 5 though open space easements and biological conservation areas. A sliver of the northern portion of the affordable housing site is proposed as a biological open space conservation

easement. The HMP extension would continue immediately northwest of the affordable housing site to proposed open space and biological conservation areas located on the southern parcel of the CCRC site. The cumulative impact to biological resources will be mitigated to a level less than significant through implementation of the HMP.

### 7.1.9 Cultural Resources

Cumulative development is expected to impact existing cultural resources in the region. The project's compliance with the mitigation measures identified in Section 5.7 – Cultural Resources, of this EIR will ensure that the project-specific impact to significant cultural resources is mitigated to a level less than significant. On a broader scope, archaeological and cultural resources are protected through Section 15064.5 of the CEQA Guidelines, other federal and state laws, and local ordinances, including the City's Cultural Resource Guidelines. Future cumulative development within the region would be subject to review under CEQA and compliance with federal, state, and local regulations protecting cultural resources. Impacts to cultural resources as a result of development in the region would be reduced to a level less than significant through implementation of mitigation measures on a project-by-project basis.

### 7.1.10 Geology/Soils

Cumulative development would result in an increase in population and development that would be exposed to hazardous geological conditions. Geologic and soils conditions are typically site specific and can be addressed through appropriate engineering practices. Cumulative impacts to geologic resources would be considered significant if the proposed project would be impacted by geologic hazards(s) and if the impact could combine with off-site geologic hazards to be cumulatively considerable. However, there are no unique geological characteristics on the project site that would pose this type of hazard. Geologic and soils conditions on the project site will result in a significant, but mitigable geology/soils impact. The proposed project's incremental effects are not cumulatively considerable. Geologic conditions in the Southern California region will essentially be the same regardless of the amount of development and the cumulative geologic impact is considered less than significant. No significant cumulative impact to geology/soils will occur.

### 7.1.11 Paleontological Resources

As identified in Section 5.9 - Paleontological Resources, geologic formations within the project site have the potential to contain paleontological resources. Any earthwork involving these formations has the potential to impact paleontological resources. Mitigation will reduce the impact to paleontological resources to a level less than significant. Implementation of paleontological studies, monitoring during construction, and recovery of important fossils would reduce the cumulative impact to paleontological resources to a level less than significant.

### 7.1.12 Hazardous Materials and Hazards

The development of cumulative projects has the potential to result in impacts related to hazards/hazardous materials. However, with the implementation of the mitigation measures identified in Section 5.10 – Hazardous Materials and Hazards, these impacts would be reduced to a level less than significant. As such,

the proposed project is not anticipated to contribute to a significant cumulative impact related to hazards and hazardous materials. No significant cumulative impact to hazardous materials and hazards will occur.

## 7.1.13 Grading and Aesthetics

Cumulative development will result in the continued alteration of the visual setting and topography of the area. Local planning policies and development standards, including specific policies related to visual resources and grading, will reduce potential aesthetic impacts of individual developments. No significant project-level grading and aesthetic impacts have been identified for the proposed project or the cumulative projects identified in the area. Cumulatively, since individual development proposals will conform with the goals, policies, and recommendations of the General Plan, the cumulative impact is considered less than significant. Individual development proposals will be assessed by the City to determine consistency with the applicable development regulations and design guidelines. No significant cumulative impact to aesthetics of the area will occur.

## 7.1.14 Hydrology/Water Quality

Development of cumulative projects have the potential to increase the amount of erosion due to the alteration of drainage patterns and increased amounts of impervious surfaces. However, proposed project drainage control and hydromodification features identified in Section 5.12 – Hydrology/Water Quality, will ensure that the impact is less than significant. Cumulative projects will be subject to the same local, state, and federal regulations with respect to hydrology and water quality, and appropriate best management practices will be implemented to ensure no significant impact occurs. Also, improvements identified in the City's Master Drainage Plan would adequately control hydrology within the watershed. Regional pollution control facilities, including the proposed on-site water quality facilities will ensure that there are no significant cumulative impacts associated with water quality/hydrology.

## 7.1.15 Population/Housing

As identified in Section 5.13 - Population/Housing, the project will not result in a significant population/housing impact. The population growth associated with the proposed project is within projected population levels as contemplated in the City's Growth Management Plan. Cumulative projects would not displace people as a result of removing residential units nor will the projects add people beyond the levels contemplated in existing plans as a result of the development of new residential units. No cumulative population/housing impact is anticipated.

## 7.1.16 Public Services and Utilities

Cumulative development will increase the population of the City, resulting in an increased demand on public services and utilities. However, the City of Carlsbad has established the requirements for preparation of, and amendments to, the LFMP as part of the City's Growth Management Program in order to anticipate and prepare for this future growth and any potential strain on services. Conformance with and periodic review of the LFMP for each respective zone will ensure the adequate provision of public services and utilities. Therefore, no significant cumulative impact to public services and utilities will occur.

## 7.2 Growth Inducing Impacts

Discussion of growth-inducing impacts is required by the State CEQA Guidelines, Section 15126.2(d). Growth inducement refers to the "ways in which a project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment." This typically includes projects that will remove obstacles to population growth, for example, as a result of the provision of public services to undeveloped areas. It must not be assumed that growth in any area is necessarily beneficial or detrimental in its effect on the environment, or that it has an insignificant effect. Each project must be evaluated on its own merit.

The proposed project is consistent with the growth projections for the northeast quadrant of the City, as the project will not result in an increase of the number of dwelling units and population above the level anticipated by the City's General Plan and Growth Management Ordinance. The LFMP process includes restrictions on the timing and phasing of development in relation to the provision of community services and infrastructure. The City's Growth Management Plan Policies, which are enforced in the LFMPs, would continue to monitor growth in the area to maintain adequate levels of service for the people living in Carlsbad. With the incorporation of the LFMP process and the City's Growth Management Plan policies, development cannot proceed until adequate infrastructure is financially guaranteed to meet demand. Implementation of the proposed project would not result in the alteration of growth patterns within the City from that anticipated in the adopted General Plan. Infrastructure does not currently exist on the project site, but will be developed as part of the proposed project. Infrastructure and proposed improvements include the construction of the approved extension of College Boulevard Reach "A," a storm drain, as well as road, water, sewer, and other utility improvements.

The creation of permanent jobs through the proposed continuing care retirement community is not at a level that would attract individuals living outside the region to relocate to Carlsbad or nearby areas. Most likely, the jobs and housing created by the proposed project are anticipated to serve the existing population within the City limits. In addition, the project would provide temporary construction jobs. The short-term nature of the construction jobs is not anticipated to lead to significant long-term population growth in the region.

## 7.3 Significant Irreversible Environmental Changes

Development of the proposed project will result in the consumption of nonrenewable energy resources, which will have a significant irreversible effect on such resources. The proposed project will also result in the development of an urban use on a site that was previously utilized for agricultural production. Once developed, reverting to a less urban use or open space is highly unlikely. Development of the project site will constrain future land use options.

Several irreversible commitments of limited resources would result from implementation of the proposed project. The resources include but are not limited to the following: lumber and other forest products; sand,

gravel, and concrete; asphalt; petrochemical construction materials; steel, cooper, lead and other metals; and water consumption.

# 7.4 Unavoidable Significant Environmental Impacts

Analysis of environmental impacts caused by the proposed project has been performed, and is contained in Section 5.0. Based on this analysis no unavoidable significant environmental impacts are identified with the implementation of the proposed project, all impacts are mitigated to a level less than significant.

# 7.5 Effects Not Found to be Significant

CEQA Guidelines §15128 requires that an EIR contain a brief statement disclosing the reasons why various possible significant effects of a proposed project were found not to be significant and, therefore, would not be discussed in detail in the EIR. The environmental issues not expected to have a significant impact as a result of the proposed project are Agricultural and Forest Resources, Mineral Resources, and Recreation.

## 7.5.1 Agricultural and Forest Resources

The proposed project site was historically used for agricultural production; however, the site is currently vacant and has not been used for agricultural production for several years. In addition, as identified in the City of Carlsbad General Plan, the project site is designated and planned to be developed with commercial and residential uses. The CCRC site is a conditional use that has been classified as commercial due to the medical and support services that will be provided to future residents. The affordable housing site would be developed with an income-restricted multi-family development (i.e., apartments). As such, the proposed project's uses are not designated for agricultural and/or forestry use. Furthermore, the project site is not under a Williamson Act contract. Therefore, implementation of the proposed project would not result in a significant impact to agricultural and forest resources.

## 7.5.2 Mineral Resources

According to maps produced by the California Division of Mines and Geology, the project site is located within Mineral Resources Zone (MRZ-3). An MRZ-3 determination is made in areas containing mineral deposits, the significance of which cannot be evaluated from available data. However, the project site is not delineated on a local general plan, specific plan or other land use plan as a locally or regionally important mineral resource recovery site. As such, development on the project site would not result in the loss of availability of a known mineral resource that will be of value to the region. Therefore, implementation of the proposed project would not result in a significant impact to mineral resources.

## 7.5.3 Recreation

As discussed in Section 5.14 Public Services and Utilities, the proposed project does not involve the construction of major recreation facilities; however, pocket parks and other amenities would be provided to serve residents of the CCRC site. Furthermore, the proposed project would not generate a significant demand for additional park and recreation facilities within the project area, such that additional parks

would be needed to serve the future residents of this area. Compliance with the Zone 15 LFMP(E) as described in Section 5.14, will ensure no impacts related to recreation will occur with the implementation of the proposed project.

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# 8.0 REFERENCES

## 8.1 Persons Responsible for Preparation of this EIR

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## 8.2 Persons and Organizations Contacted

During preparation of this EIR, the following individuals and organizations were contacted:

*(to be provided)*

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